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Reply to Office Action of 28 October 2004

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in this application:

Listing of Claims:

1. (Currently Amended) A drag-inducing kickboard apparatus comprising:
a buoyant kickboard having a front end tapered in width and a generally flattened upper surface for receiving and supporting the arms or upper body of a swimmer in a prone position, the upper surface free from upward projections that would interfere with a swimmer placing his or her upper body on the upper surface; and
a funnel member disposed below an undersurface of the kickboard located opposite the upper surface, the funnel member defining, either itself or in combination with the undersurface of the kickboard, a channel having one or more front openings for allowing water into the channel and one or more rear openings for allowing water to escape from the channel, wherein the one or more front openings are located closer to the tapered front end than the one or more rear openings and wherein the one or more front openings have a total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings.
2. (Original) A kickboard apparatus according to claim 1 wherein the funnel member comprises at least one inner surface that is spaced apart from the undersurface of the kickboard to define the channel between the at least one

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inner surface of the funnel member and the undersurface of the kickboard.

3. (Original) A kickboard apparatus according to claim 1 wherein the funnel member is sufficiently rigid to maintain a shape of the channel when the funnel member is wet and there is no flow of water through the channel.
4. (Original) A kickboard apparatus according to claim 3 wherein the funnel member is sufficiently rigid to maintain the shape of the channel when there is a flow of water through the channel, the flow of water created by a human swimmer.
5. (Original) A kickboard apparatus according to claim 1 wherein the funnel member and the kickboard are integrally formed.
6. (Original) A kickboard apparatus according to claim 1 wherein the funnel member is formed separately from the kickboard and the funnel member is coupled to the kickboard.
7. (Original) A kickboard apparatus according to claim 6 wherein each transverse side of the funnel member comprises one or more flanges which extend along the undersurface of the kickboard.
8. (Original) A kickboard apparatus according to claim 7 wherein the funnel member is coupled to the kickboard by one or more fasteners which project through the flanges and into the kickboard.

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9. (Original) A kickboard apparatus according to claim 7 wherein the funnel member is coupled to the undersurface of the kickboard by adhesive applied between the one or more flanges and the undersurface of the kickboard.
10. (Original) A kickboard apparatus according to claim 6 wherein the funnel member is welded to the undersurface of the kickboard.
11. (Currently Amended) ~~A kickboard apparatus according to claim 1 comprising a plurality of funnel members~~ A drag-inducing kickboard apparatus comprising:
a buoyant kickboard; and
a plurality of funnel members, each funnel member disposed below an undersurface of the kickboard, the funnel member defining, either itself or in combination with the undersurface of the kickboard, a channel having one or more front openings for allowing water into the channel and one or more rear openings for allowing water to escape from the channel, wherein the one or more front openings have a total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings and each funnel member comprising at least one corresponding inner surface that is spaced apart from the undersurface to define a corresponding channel between the at least one corresponding inner surface of the funnel member and the undersurface of the kickboard, wherein each funnel member is shaped to provide its corresponding channel with one or more front openings for allowing water into the corresponding channel and one or more rear openings for allowing water to escape from the corresponding channel and wherein, for each funnel member, the one or more front openings have a

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total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings.

12. (Original) A kickboard apparatus according to claim 1 comprising a plurality of funnel members, each funnel member defining, either itself or in combination with the undersurface of the kickboard, a corresponding channel having one or more front openings for allowing water into the corresponding channel and one or more rear openings for allowing water to escape from the corresponding channel and wherein, for each funnel member, the one or more front openings have a total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings.
13. (Original) A kickboard apparatus according to claim 2 wherein the at least one inner surface has a curved cross-sectional profile.
14. (Original) A kickboard apparatus according to claim 1 wherein the channel has a generally rectangular cross-sectional profile.
15. (Original) A kickboard apparatus according to claim 1 wherein the channel has a generally triangular cross-sectional profile.
16. (Original) A kickboard apparatus according to claim 1 wherein the funnel member comprises a rear surface located rearward of the one or more front openings and the one or more rear openings penetrate the rear surface.

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17. (Currently Amended) ~~A kickboard apparatus according to claim 16~~ A drag-inducing kickboard apparatus comprising:
a buoivant kickboard; and
a funnel member disposed below an undersurface of the kickboard, the funnel member defining, either itself or in combination with the undersurface of the kickboard, a channel having one or more front openings for allowing water into the channel and one or more rear openings for allowing water to escape from the channel, wherein the one or more front openings have a total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings;
wherein the funnel member comprises a rear surface located rearward of the one or more front openings and the one or more rear openings penetrate the rear surface and wherein the cross-sectional area of the channel is substantially constant between the one or more front openings and the rear surface.
18. (Original) A kickboard apparatus according to claim 1 wherein the funnel member comprises a front surface and the one or more front openings penetrate the front surface.
19. (Original) A kickboard apparatus according to claim 1 wherein the undersurface of the kickboard is substantially flat.
20. (Original) A kickboard apparatus according to claim 1 wherein the undersurface of the kickboard has a curved profile.

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21. (Original) A kickboard apparatus according to claim 1 wherein the cross-sectional area of the channel decreases monotonically between the one or more front openings and the one or more rear openings.
22. (Original) A kickboard apparatus according to claim 1 wherein the funnel member is fabricated from one or more of: plastic, foam, rubber and neoprene.
23. (Original) A kickboard apparatus according to claim 1 wherein the funnel member comprises a relatively flexible material and a plurality of relatively rigid braces which are coupled to the relatively flexible material.
24. (Currently Amended) ~~A kickboard apparatus according to claim~~ A drag-inducing kickboard apparatus comprising:
a buoyant kickboard; and
a funnel member disposed below an undersurface of the kickboard, the funnel member defining, either itself or in combination with the undersurface of the kickboard, a channel having one or more front openings for allowing water into the channel and one or more rear openings for allowing water to escape from the channel, wherein the one or more front openings have a total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings;
wherein the funnel member comprises one or more inflatable cells which may be inflated with air.
25. (Original) A kickboard apparatus according to claim 1 wherein the total cross-sectional area of the front openings is in a range of 3-45 square inches.

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26. (Original) A kickboard apparatus according to claim 1 wherein the total cross-sectional area of the rear openings is in a range of 1-20 square inches.
27. (Currently Amended) A kit for providing a kickboard with increased drag, the kit comprising a funnel member that is coupleable to a kickboard having a front end tapered in width and a generally flattened upper surface for receiving and supporting the arms or upper body of a swimmer in a prone position, the upper surface free from upward projections that would interfere with a swimmer placing his or her upper body on the upper surface, wherein, when coupled to the kickboard, the funnel member defines, either itself or in combination with an undersurface of the kickboard, a channel located on an underside of the kickboard opposite the upper surface, the channel having one or more front openings for allowing water into the channel and one or more rear openings for allowing water to escape from the channel, wherein the one or more front openings are located closer to the tapered front end than the one or more rear openings and wherein the one or more front openings have a total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings.
28. (Currently Amended) A method for increasing the drag provided by a kickboard, the method comprising:
providing a kickboard having a front end tapered in width and a generally flattened upper surface for receiving and supporting the arms or upper body of a swimmer in a prone position, the upper surface free from upward projections that would interfere with a swimmer placing his or her upper body on the upper surface;

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providing a funnel member;

coupling the funnel member to the kickboard in such a manner that the funnel member, either itself or in combination with an undersurface of the kickboard, defines a channel located on an underside of the kickboard opposite the upper surface, the channel having one or more front openings for allowing water into the channel and one or more rear openings for allowing water to escape from the channel;

wherein the one or more front openings are located closer to the tapered front end than the one or more rear openings; and

wherein the one or more front openings have a total cross-sectional area that is greater than a total cross-sectional area of the one or more rear openings.

29. (Currently Amended) A kickboard apparatus comprising a buoyant kickboard having a front end tapered in width and a generally flattened upper surface for receiving and supporting the arms or upper body of a swimmer in a prone position, the upper surface free from upward projections that would interfere with a swimmer placing his or her upper body on the upper surface and a means for increasing a drag provided by the kickboard when the kickboard is propelled through water, the means for increasing drag providing at least one channel located on an underside of the kickboard opposite the upper surface, the channel having a forward-facing an inlet facing the tapered front end and at least one outlet located rearward of the inlet, the inlet having a cross-sectional area greater than that of the outlet.